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Teratological Study of Piroctone Olamine (PO) in Rats
- Subcutaneous Administration at Different Times during Organogenesis -

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Summary

PO (vehicle: 0.5 % CMC) was administered subcutaneously at 2000 mg/kg/day to female rats (20 animals per group) during days 6 - 20, days 7 - 17, or days 9 - 17 of gestation, and examined for its effects on dams and their fetuses. 0.5 % CMC subcutaneously applied to 20 pregnant female animals during days 6 - 20 of gestation served as control. The fetuses were delivered by cesarean section on day 21 of gestation.

The body weight gain of the treated females was depressed in the late stage of gestation, but no death occurred in any group.

There were no significant differences in the following fetal parameters between any treatment group and the control group: numbers of implantations, resorptions, and dead and living fetuses, and sex ratio of the living fetuses. The body weights of the living fetuses in the PO groups were lower than the control value. The external abnormalities noted in the treated groups were cleft palate, defect of the eyeballs, and hydrocephaly, but the incidences of fetuses with these abnormalities were within normal limits. The only visceral anomaly was dilatation of the renal pelvis, which appeared in any group including the control group. As to the skeletal findings, the ossification was slightly delayed in the PO groups when compared with that in the control, and the following abnormalities were noted in 2 PO groups with the incidences (1.4, 1.6 %) included in the spontaneous range: complication of defect of a cervical vertebral arch and fusion of cervical vertebral arches, the 13th rib shortened, and fusion of sternebrae.

Start of the experiment: Sept. 13, 1981
End of the experiment: Februar, 1982

Hoechst Japan Limited
Research and Development Laboratories
Department of Biological Science

Quarter: IV
Year: 1981

Toxicology

Expt. No.: 5-1-'80-21

Compound: Octopirox

Experiment: Teratogenicity

Administration route: s.c.

Animal species: Rats

Group	Number of animals		Compound	Dosage (mg/kg)	Vehicle
	~~Male~~	Pregnant Female			
A		24	Octopirox	2000	0.5% CMC
B		21	"	500	"
C		22	"	100	"
D		26	0.5% CMC	Control	

Time schedule:

Start of the experiment: Feb. 24, 1981

End of the experiment: Jan. 30, 1981

Completion of the final report in Japanese: Sept. 30, 1981

Comments:

External abnormalities were found in 5 (1.45%) and 2 (0.62%) fetuses in the 2000 and 100 mg/kg groups, respectively. There was no correlation between the dose and the incidence of these changes.

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Quarter: IV
Year: 1981

Toxicology

Expt. No.: 5-1a-'81-21

Compound: Octopirox

Experiment: Teratogenicity (additional experiment)

Administration route: s.c.

Animal species: Rats

Group	Number of animals		Compound	Dosage (mg/kg)	Administration volume (ml/100 g)	Administration period
	~~Male~~	Pregnant Female				
A		20	Octopirox	2000	0.5	Days 6 - 20 of gestation
B		"	"	"	"	Days 7 - 17 of gestation
C		"	"	"	"	Days 9 - 17 of gestation
D		"	0.5% CMC	Control	"	Days 6 - 20 of gestation

Time schedule:

Start of the experiment: Sept. 13, 1981

End of the experiment: Feb., 1982

Completion of the final report in Japanese: Feb., 1982

Comments:

There was no external change considered to be related to octopirox.